Chauliodontomyia egregia, n. sp.

Adult.—Male flagellomeres covered from base to neck with setulae. First labellar segment dorsad of second segment and not as large as in *C. parianae*, with lower part of head consequently not quadrate in profile (fig. 3); second labellar segment posterior to labrum in profile. Wing length, 1.63–190 mm. Male genitalia (fig. 6): sternum X narrowing towards apex; aedeagus narrowest at apex; distimere straight, parallel sided, with broad apical tooth.

Types.—Holotype, ♂, collected on spike of *Pariana stenolemma* Tutin, in rain forest, Rancho Grande, near Maracay, Venezuela, 8-VI-1967, T. R. Soderstrom, USNM 70061. Paratypes: 5 ♂♂, 4 ♀♀, same data as holotype, in USNM; 1 ♂, 1 ♀, same data as holotype, in British Museum (N.H.).

A NEW SPECIES OF ANTONINA SIGNORET FROM SOUTH DAKOTA WITH NEW RECORDS FOR A. BOUTELOUAE PARROTT[1]

(Homoptera: Coccoidea: Pseudococcidae)

Michael Kosztarab[2] *and* Burruss McDaniel[3]

ABSTRACT—Description and figures are given of the adult female of a new species, *Antonina* **dakotensis**. This mealybug was collected from Custer County, South Dakota on hairy grama grass. It differs from the other species of *Antonina* in the possession of 6-, and 7-locular pores, also of oral rim ducts, and in the absence of anal ring hairs, 3-locular and multilocular pores.

Although there are 18 species of *Antonina* Signoret known from the world, only five were previously represented in North America. We have prepared the description of an unusual new species found in North America. A revision of the genus by the senior author is in the concluding stage, and a key to all the species of *Antonina* will be given in that publication.

Antonina dakotensis, n. sp.

(Figs. a-l)

Description of the holotype female.—General shape (fig. a) globose. Length 1,772μ; width 1,817μ. No body segmentation or sclerotization detected. Color of live female reddish pink.

Dorsal surface.—Small oral collar tubular ducts (fig. b): few in number, 2.4μ long; 2.4μ in diameter.

Oral rim ducts (fig. c): numerous, 5.7μ long; 7.2μ in diameter, scattered on the entire dorsum.

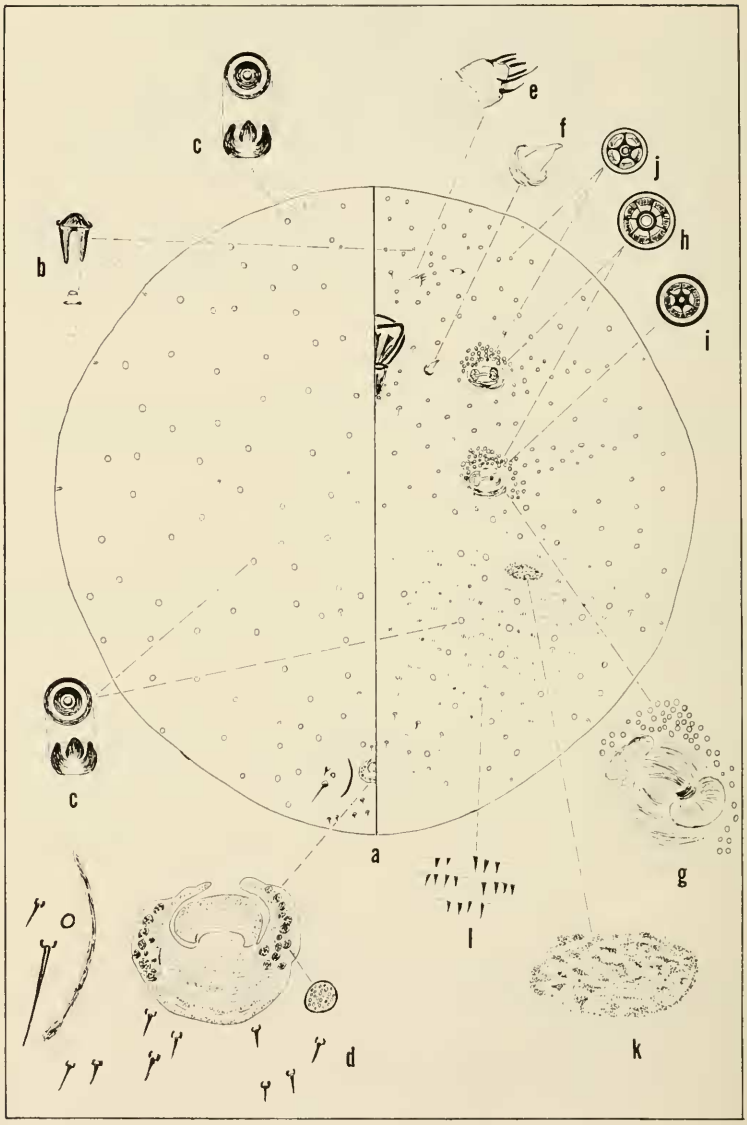
Setae: hairlike, 7.8μ in length.

---

[1] Immediate publication secured by full payment of page charges—Editor.

[2] Department of Entomology, Virginia Polytechnic Institute, Blacksburg, Virginia 24061.

[3] Entomology-Zoology Department, South Dakota State University, Brookings, South Dakota 57006. Approved for publication by the Director of the South Dakota Agricultural Experiment Station as Journal Series No. 486.



Antonina dakotensis, n.sp., female

No dorsal ostiole or anal tube developed.

Anal ring (fig. d): subcircular, 47.5μ long; 70.4μ in diameter, with one row of large irregularly shaped pores, and with some scattered small pores, but without hairs. Setae latero-caudad of anal ring, 9 in number; length 11.9μ (11.5–12.3).

Apical setae tapering, 34.6μ long, located laterally from anal ring. A sclerotized, curved, internal structure between the anal ring and apical setae.

Ventral surface.—Eye bases: hardly visible, transverse, 10μ wide; 14.4μ long.

Antennae (fig. e): one-segmented, 23.5–27.4μ long; antennal base 29μ in diameter. Apex of antenna with 6 setae, 14–23μ long.

Labium: triangular in shape, 117μ long, 78μ wide; with four setae, 11.5–14.4μ long.

Clypeolabral shield: subcircular, 195μ long and 218μ wide.

Legs (fig. f): anterior pair of legs indicated by an unsegmented, fleshy structure between anterior spiracles and clypeolabral shield.

Spiracles: Anterior pair 78μ long; atrium 54.7μ in diameter; with a group of 30–36 seven-, six-, and five-locular pores anterior of the spiracles. Posterior pair (fig. g) 98μ long; atrium 35μ in diameter; with a group of 36–46 seven-, six-, and five-locular disc pores anteriorly.

Seven-locular disc pores (fig. h): 6.6μ in diameter (5.8–7.2). Confined to the venter on the head and thoracic regions.

Six-locular disc pores (fig. i): 7.2μ in diameter, few located anterior to and laterad of the spiracles.

Five-locular disc pores (fig. j): 6.5μ in diameter (5.8–7.2). Most on the head, a few scattered on the thorax.

Small oral collar tubular ducts (fig. b): as on the dorsum.

Oral rim ducts (fig. c): few scattered on the abdomen.

Pore plate (fig. k): oval in shape, with rasplike surface, located posteriorly of hind spiracles, 78–82μ long and 39–43μ wide.

Spinelike minute structures (fig. l): in rows on the abdomen, always 2 to 4 in a cluster.

Holotype.—Deposited in the Coccoidea collection of the U. S. National Museum.

Described from a single adult female found on the crown within the leaf sheath of hairy grama grass, *Bouteloua hirsuta* Lag., Custer State Park, Custer County, South Dakota, 5 August, 1967; Burruss McDaniel collector.

To obtain more specimens for this description, the junior author checked over 500 samples of the host during August 1967, and attempted re-collecting at the type locality during the 1968 summer season, but was unsuccessful.

Because of the short summers at the type locality, it is assumed that this species has only one yearly generation.

We have assigned this new species to the genus *Antonina* with some reluctance. It is expected that its generic assignment will change after more specimens are studied and compared with the type species of related genera. The main morphological differences from the other species of *Antonina* are as follows: *A. dakotensis* does not possess anal ring hairs, trilocular or ten-locular pores as found in the known species of *Antonina*. It has six-, and seven-locular pores and also oral rim ducts, none of which are present in any other species of this genus. The generic assignment is based on the absence of middle and hind

legs, ventral circuli, dorsal ostioles, and the reduction of antennae to a one-segmented stub, also the association with grass as host.

The description and illustration of this species were made with the aid of a Zeiss phase contrast microscope. A maximum magnification of 2,000× was used for the study of pores.

Antonina boutelouae Parrott was previously known only from Arizona, Kansas and Texas (Ferris, 1953). The only known hosts were the grasses *Bouteloua hirsuta* Lag., *B. chondrosioides* (H.B.K.) Benth. (= *B. havardii* Vasey) and an unidentified *Bouteloua*. The junior author collected fully developed females and one first instar nymph of this species from a new host, the blue grama grass, *B. gracilis* (H.B.K.) Lag. at Gary, South Dakota on September 6, 1967. This provides a new state record, which is also the most northern distribution record of this and of any known species of *Antonina*.

Acknowledgments

Collecting trips were supported under South Dakota State University Experiment Station, Project H-469. The equipment used for the study and description of this species was provided through the National Science Foundation, Grant N.S.F.-GB 6885X. The authors extend their sincere thanks to L. M. Russell of the U. S. Department of Agriculture, for reviewing this manuscript and for making valuable comments.

Reference

Ferris, G. F. 1953. Atlas of the scale insects of North America (Vol. 6). The Pseudococcidae. (Pt. II). Stanford Univ. Press, VII + 279–506 p., illus.